

### REMARKS

The Abstract has been amended as requested by the Examiner at page 2 of the Office Action. A clean copy of the Abstract on a separate page is attached at Tab A. Claims 1 and 22 have been amended. No new matter has been added.

### Information Disclosure Statement

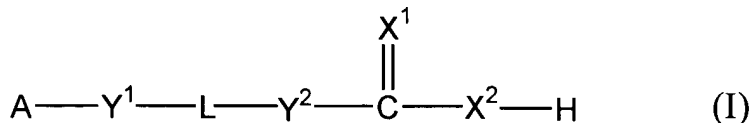
Applicants thank the Examiner for noting that the copy of reference "FJ" from PTO Form 1449 submitted with the Application was defective. See page 2 of the Office Action. Enclosed is a complete copy of reference "FJ" including a legible version of page 1616. Reference "FJ" has been listed again on PTO Form 1449 of the Information Disclosure Statement submitted with this amendment. Applicants respectfully request that the Examiner indicate consideration of the reference by initialing the form and returning a copy to Applicants.

### Rejections under 35 U.S.C. § 102

#### Patel

Claims 1-5, 7, 8, 12, 13, 16, 17, 22, 25 and 26 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Patel *et al.*, J. Org. Chem. 43:5018-5020 (1978) ("Patel"). The Examiner contends that independent claims 1 and 22, and claims that depend therefrom, cover 7-phenyl-2,4,6-heptatrienoic acid. The Examiner suggests that "Applicant's proviso fails to proviso out the previously elected specie." Page 3 of the Office Action. Applicants respectfully disagree.

Applicants have discovered compounds of formula (I)



In the compound of formula (I), L is a straight C<sub>3-12</sub> hydrocarbon chain optionally containing at least one double bond and being optionally substituted. When L contains three double bonds, the hydrocarbon chain is substituted. See independent claims 1 and 22.

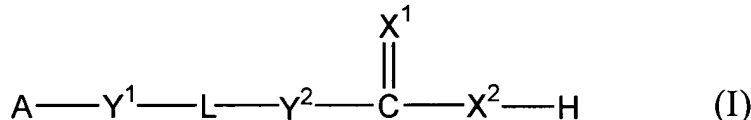
In 7-phenyl-2,4,6-heptatrienoic acid, A is phenyl, each of X<sup>1</sup> and X<sup>2</sup> is oxygen, each of Y<sup>1</sup> and Y<sup>2</sup> is a bond, and L is an **unsubstituted** C<sub>6</sub> hydrocarbon containing three double bonds. 7-Phenyl-2,4,6-heptatrienoic acid does not contain a **substituted** hydrocarbon containing three double bonds. Thus, Patel does not disclose a compound of independent claims 1 or 22.

Accordingly, independent claims 1 and 22, and claims 2-5, 7, 8, 12, 13, 16, 17, 25 and 26 that depend therefrom, are not anticipated by Patel. Applicants respectfully request reconsideration and withdrawal of the anticipation rejection over Patel.

**Black**

Claims 1-5, 7, 8, 12, 13, 16, 17, 22, 25 and 26 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Black *et al.*, U.S. Patent No. 5,037,813 ("Black"). The Examiner contends that independent claims 1 and 22, and claims that depend therefrom, cover 8-phenylocta-2,4-dienoic acid.

Applicants have discovered compounds of formula (I)



In the compound of formula (I), L is a straight C<sub>3-12</sub> hydrocarbon chain optionally containing at least one double bond and being optionally substituted. When L contains 7 carbon atoms or fewer in the hydrocarbon chain and A is C<sub>1-4</sub> alkyl phenyl or unsubstituted phenyl, Y<sup>1</sup> is not a bond or CH<sub>2</sub>. See independent claims 1 and 22.

In 8-phenylocta-2,4-dienoic acid, A is phenyl, each of X<sup>1</sup> and X<sup>2</sup> is oxygen, each of Y<sup>1</sup> and Y<sup>2</sup> is a bond, and L contains 7 carbon atoms in the hydrocarbon chain. Alternatively, in 8-phenylocta-2,4-dienoic acid, A is phenyl, each of X<sup>1</sup> and X<sup>2</sup> is oxygen, Y<sup>1</sup> is CH<sub>2</sub>, Y<sup>2</sup> is a bond, and L contains 6 carbon atoms in the hydrocarbon chain. 8-Phenylocta-2,4-dienoic acid is not a compound of formula (I) in which L is a straight C<sub>3-12</sub> hydrocarbon chain in which, when L contains 7 carbon atoms or fewer in the hydrocarbon chain, Y<sup>1</sup> is not a bond or CH<sub>2</sub>. Thus, Black does not disclose a compound of independent claims 1 or 22.

Applicant : Hsuan-Yin Lan-Hest et al.  
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Accordingly, independent claims 1 and 22, and claims 2-5, 7, 8, 12, 13, 16, 17, 25 and 26 that depend therefrom, are not anticipated by Black. Applicants respectfully request reconsideration and withdrawal of the anticipation rejection over Black.

Applicants thank the Examiner for acknowledging the patentability of the elected species. See page 4 of the Office Action. Accordingly, Applicants respectfully request complete examination of claims 1-79, including the withdrawn claims.

Attached is a marked-up version of the changes being made by the current amendment.

**CONCLUSION**

Applicant asks that all claims be allowed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: \_\_\_\_\_

7.17.02



Harold H. Fox  
Reg. No. 41,498

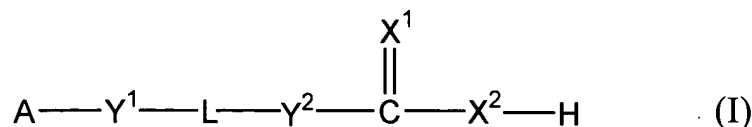
Fish & Richardson P.C.  
1425 K Street, N.W.  
11th Floor  
Washington, DC 20005-3500  
Telephone: (202) 783-5070  
Facsimile: (202) 783-2331

**Version with markings to show changes made**

In the claims:

Claims 1 and 22 have been amended as follows:

--1. (Amended) A compound of formula (I):



wherein

A is a cyclic moiety selected from the group consisting of C<sub>3-14</sub> cycloalkyl, 3-14 membered heterocycloalkyl, C<sub>4-14</sub> cycloalkenyl, 3-14 membered heterocycloalkenyl, aryl, and heteroaryl; the cyclic moiety being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl, alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, or alkylsulfonyl;

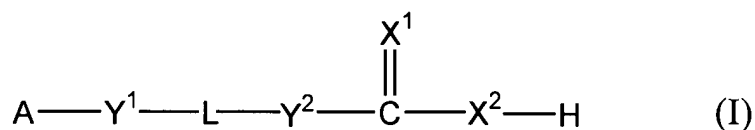
each of X<sup>1</sup> and X<sup>2</sup>, independently, is O or S;

each of Y<sup>1</sup> and Y<sup>2</sup>, independently, is -CH<sub>2</sub>-, -O-, -S-, -N(R<sup>a</sup>)-, -N(R<sup>a</sup>)-C(O)-O-, -O-C(O)-N(R<sup>a</sup>)-, -N(R<sup>a</sup>)-C(O)-N(R<sup>b</sup>)-, -O-C(O)-O-, or a bond; each of R<sup>a</sup> and R<sup>b</sup>, independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;

L is a straight C<sub>3-12</sub> hydrocarbon chain optionally containing at least one double bond, at least one triple bond, or at least one double bond and one triple bond; said hydrocarbon chain being optionally substituted with C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, C<sub>2-4</sub> alkynyl, C<sub>1-4</sub> alkoxy, hydroxyl, halo, amino, nitro, cyano, C<sub>3-5</sub> cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, C<sub>1-4</sub> alkylcarbonyloxy, C<sub>1-4</sub> alkyloxycarbonyl, C<sub>1-4</sub> alkylcarbonyl, or formyl; and further being optionally interrupted by -O-, -N(R<sup>c</sup>)-, -N(R<sup>c</sup>)-C(O)-O-, -O-C(O)-N(R<sup>c</sup>)-, -N(R<sup>c</sup>)-C(O)-N(R<sup>d</sup>)-, or -O-C(O)-O-; each of R<sup>c</sup> and R<sup>d</sup>, independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl; provided that when L contains two or more double bonds, the double bonds are not adjacent to each other; that when L contains three double bonds, said

hydrocarbon chain is substituted with C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, C<sub>2-4</sub> alkynyl, C<sub>1-4</sub> alkoxy, hydroxyl, halo, amino, nitro, cyano, C<sub>3-5</sub> cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, C<sub>1-4</sub> alkylcarbonyloxy, C<sub>1-4</sub> alkyloxycarbonyl, C<sub>1-4</sub> alkylcarbonyl, or formyl; and further provided that when L contains [less than 6] 7 carbon atoms or fewer in the hydrocarbon chain and A is C<sub>1-4</sub> alkyl phenyl or unsubstituted phenyl, Y<sup>1</sup> is not a bond or CH<sub>2</sub>;  
or a salt thereof.--

--22. (Amended) A compound of formula (I):



wherein

A is a cyclic moiety selected from the group consisting of aryl and heteroaryl; the cyclic moiety being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, or amino;

each of X<sup>1</sup> and X<sup>2</sup>, independently, is O or S;

each of Y<sup>1</sup> and Y<sup>2</sup>, independently, is -CH<sub>2</sub>-, -O-, -S-, -N(R<sup>a</sup>)-, -N(R<sup>a</sup>)-C(O)-O-, -O-C(O)-N(R<sup>a</sup>)-, -N(R<sup>a</sup>)-C(O)-N(R<sup>b</sup>)-, -O-C(O)-O-, or a bond; each of R<sup>a</sup> and R<sup>b</sup>, independently, being hydrogen, alkyl, hydroxylalkyl, or haloalkyl;

L is a straight C<sub>3-12</sub> hydrocarbon chain optionally containing at least one double bond, at least one triple bond, or at least one double bond and one triple bond; said hydrocarbon chain being optionally substituted with C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, C<sub>2-4</sub> alkynyl, C<sub>1-4</sub> alkoxy, or amino, and further optionally interrupted by -O- or -N(R<sup>c</sup>)-, where R<sup>c</sup> is hydrogen, alkyl, hydroxylalkyl, or haloalkyl; provided that when L contains two or more double bonds, the double bonds are not adjacent to each other; that when L contains three double bonds, said hydrocarbon chain is substituted with C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, C<sub>2-4</sub> alkynyl, C<sub>1-4</sub> alkoxy, hydroxyl, halo, amino, nitro, cyano, C<sub>3-5</sub> cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, C<sub>1-4</sub> alkylcarbonyloxy, C<sub>1-4</sub> alkyloxycarbonyl, C<sub>1-</sub>